

THE BIRDS OF COORG

BY

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PART II

(*With two plates*)

(*Continued from p. 63 of this volume*)

Motacilla alba : The White Wagtail.

A fairly common winter migrant in the Dry Zone. Odd birds find their way up into the Inter-Zone. These usually settle down in some farm-yard or coffee pulphouse and spend the whole winter there, rarely moving a hundred yards from their headquarters.

Motacilla maderaspatensis : The Large Pied Wagtail.

An exclusively waterside wagtail whose range coincides with that of the Wire-tailed Swallow. They are found on all the large rivers of the Province, both those running out into Malabar from the foot of the Ghats, and the waters of the Cauvery system flowing east through the deciduous forest, becoming most numerous of all on the main river when it reaches the open country of the Dry Zone. The smaller streams and brooks among the higher hills do not attract them. They are found occasionally round large tanks, but prefer running water. They are nearly always seen in pairs which hold together throughout the year, and spend their time hunting over the rocks and islets in mid-stream. If the banks are open they extend their forays some way inland particularly in the monsoon when the rivers are flooding. The breeding season is extended, beginning as soon as the rivers drop to dry-season level about Christmas, and continuing until the break of the rains in June. Nesting sites are varied. If possible they choose some grassy rock or islet well out from shore; in such situations the nest is tucked away among the roots of the long grass and very well concealed. Other sites which I have seen were in hollows of stranded tree-trunks, under bridges, and once on a car-ferry in constant use. They are always however within a few feet of the water. The nest is a rough collection of roots and coarse grass in the centre of which is a neat cup lined with hair. The birds have a loud, cheerful, rattling song which is as much a demonstration of anger or alarm as of pleasure, for it is uttered by both sexes when any intruder approaches the nest.

Motacilla cinerea : The Grey Wagtail.

The commonest of our winter migrants. They visit the whole of Coorg in great numbers though they are scarcer in the Dry Zone, and are one of the first species to arrive, coming in at the beginning of September, while odd birds linger on until mid-May. They scatter widely during the daytime, but in the evening gather in big communal

roosts in thick trees or patches of lantana scrub. In some cases at least the identical birds return every year to the same winter quarters. One, distinguished by a particularly large white wing patch, spent three winters running in my garden, and used to conduct daily battles with its reflection in one of the bedroom windows.

Motacilla flava : The Grey-headed Wagtail.

A regular winter visitor to the Mysore 'Maidan' and almost certainly must visit the Coorg Dry Zone occasionally, though I have not seen it.

Dendronanthus indicus : The Forest Wagtail.

A common winter visitor in the Inter-Zone. Coffee plantations are their favourite habitat, but they may be found anywhere in evergreen woodland of an open type. They avoid dense forest, nor are they found in the deciduous forest belt or the Dry Zone. They are usually seen singly, feeding on the ground under the coffee or undergrowth, and fly up into a tree when disturbed, where they utter a 'chink, chink' note like that of the European Chaffinch, and oscillate the tail from side to side, not up and down like the true wagtails. They are much more arboreal than the latter, and a good deal of their food is found in the trees.

Anthus hodgsoni : The Tree Pipit.

A common and regular winter visitor, closely resembling the last species in habits and distribution. The Inter-Zone, particularly coffee land are their favourite haunts and they will rarely be found outside evergreen woodland. They live in flocks of considerable size, feeding on the ground and flying up into the trees when disturbed.

Anthus nilghiriensis : The Nilgiri Pipit.

Anthus similis : The Rufous Rock Pipit.

Both these species, particularly the second, might be expected to occur on the grassy crags of the higher Ghat peaks, but I have failed to find them myself and no one else has recorded them from Coorg.

Anthus rufulus : The Indian Pipit.

The common resident pipit of Coorg, found all over the Province from the Dry Zone to the high Ghat peaks, and even in the forest wherever there are considerable clearings. They are usually seen in pairs, and are typical pipits in all their ways. Such song as they have consists of a wheezy trill uttered as the bird flutters a few feet into the air and dives earthwards with closed wings. The breeding season extends throughout most of the dry season from January till the break of the rains. The nest is very well concealed in the depths of a grass tuft, and is only to be found by watching the bird. Three eggs form the usual clutch.

Anthus thermophilus. Blyth's Pipit.

A specimen from Coorg is in the British Museum. I have not come across this bird myself.

Mirafra affinis : The Madras Bush-Lark.

Fairly numerous in the Dry Zone in scrubby grazing land rather than cultivation, turning up again in large clearings and abandoned paddy fields in the deciduous forest provided the grass is short. Its requirements seem to be grassland with plenty of scrub and low trees. They may be seen singly or in pairs, feeding on the ground, creeping about very quietly and inconspicuously. The flight is weak and when disturbed they fly up into the trees. The breeding season is rather late, depending on the time of the first rains. The song is a succession of whirring notes uttered as the bird flutters up to a height of 30 or 40 feet and then floats down on outstretched wings to the nearest low tree or rock.

The only nest I have seen was found late in May and contained well-grown young. It was a grass cup, well concealed in a tuft of grass the growing blades of which were interwoven overhead to form a regular dome.

Galerida malabarica : The Malabar Crested Lark.

The common lark of Coorg and very numerous on open maidans and close-cropped grazing grounds throughout the Inter-Zone, and in cultivation and open country through the Dry Zone. They like short-grassed downland clear of scrub and trees up to an elevation of 4,000 ft. but are not found on the high downs of the Ghat summits. Except during the breeding season they tend to flock and wander a good deal, particularly during the monsoon. Nesting takes place from January till the break of the rains. Unlike many of the open country birds they do not wait for the first showers and many nests are destroyed in the grass-fires in March. The song is quite a fine one, uttered on the wing, the bird rising to a considerable height. Unlike the last species they are entirely terrestrial, rarely if ever perching on trees or bushes. The nest is built in the open without concealment, though often backing against a tuft of stiff grass. It is a neat cup nearly always surrounded by a conspicuous platform of dry grass and bits of cowdung. The young are clothed in down when hatched, and are fed very largely on grasshoppers. At an early stage they leave the nest and seek shelter in neighbouring grass tufts, where their cryptic plumage makes them very hard to find. The usual clutch is two.

Ammomanes phoenicura : The Rufous-tailed Finch-Lark.

Seen on one occasion in the driest part of the Dry Zone. It was very tame, relying on squatting motionless for concealment, and I was able to approach within two yards before it took wing.

Eremopteryx grisea : The Ashy-crowned Finch-Lark.

Only seen in one locality in the driest part of the Dry Zone. On a grassy patch of maidan just outside the village of Hebbale, one could usually come on one or two along the dusty cart tracks, dust bathing or picking about among the goat and cattle droppings. When flushed they merely flutter a few yards and settle again, or if one does not come too close, merely crouch without taking wing.

at all, thus hiding the conspicuous black underparts. I have not found a nest, but they probably breed there as they are very sedentary birds.

Zosterops palpebrosa : The White-eye.

Widely distributed through the wetter and more well-wooded portions of the Province. They are numerous in coffee cultivation and in the evergreen sholas up to the highest peaks of the Ghats, also in the canopy of the rain forest on their western slopes. They go about in large flocks keeping up among the tree-tops. Most nests in Coorg are built high up, well out of reach, in contrast to the Nilgiris where they are frequently found within a few feet of the ground. I have, however, found one in a coffee bush at four feet only. The nest is a tiny and very fragile, loosely-built hammock of fine grass, slung in a horizontal fork in a tuft of leaves at the end of a bough, and well-concealed. Two pale blue eggs are laid. The nesting season lasts through the hot weather from March to May, and breeding is sometimes resumed in September after the monsoon.

Cynnyris lotenia : Loten's Sunbird.

This sunbird is fairly common throughout the greater part of Coorg at medium elevations, but less so than either *C. asiatica* or *C. zeylanica*. They are most numerous in the Inter-Zone and the neighbouring parts of the deciduous forest, and on the lower Ghat slopes, but I have not seen them in the Dry Zone. As with most of the family, well-wooded but fairly open country with plenty of flowering trees and shrubs, gardens and cultivated land are their favourite haunts. In thick evergreen forest, where they occur at all, they are confined to the canopy. The nest may be distinguished from that of other species by the comparative lack of cobweb in the construction of the exterior. The outside is extremely untidy, being covered in a mass of dead leaves which hang below the nest proper in a ragged tail several inches long. They are usually at a fair height, ten feet or more, and tend to be built in the shade or in the interior of some fairly dense-foliaged tree, and would be difficult to find were it not for the bold demeanour of the birds. The main breeding season is March to May, and the normal clutch is two. The cock has a loud, sweet, cheerful song. The nectar of flowers and the small insects found in their corollas form the greater part of their food.

Cynniris asiatica : The Purple Sunbird.

This species is commoner and more widely-spread than the last and may be found anywhere throughout the Province, except perhaps in the heart of heavy evergreen forest. They are most cheerful, friendly little birds. Any flower garden is certain to have a regular population, and they play an important part in the cross-fertilisation of flowers. Their foreheads may often be seen plastered with pollen. Nevertheless, although the beak and tongue are so well-adapted for probing the recesses of blossoms, in many cases of flowers with long corollas such as *Hibiscus* and *Ipomoea* they do not approach by the front door, but find a short cut to the nectaries by piercing the petals at the base.

Nests may be found at almost any season, but mostly between February and May. They are built in the most conspicuous places; a rose bush in a garden; suspended from a bit of string hanging in a verandah; a wire trellis or the extreme tip of some bare twig at any height between one foot and twenty from the ground, but usually within six feet of it. Despite the lack of concealment, the nest often escapes notice as it may easily be taken for a casual, wind-blown collection of cobwebs and rubbish. It is very like that of the last species, but a much greater use is made of cobweb which forms the major part of the exterior of the pear-shaped pouch. Dead leaves, pieces of bark and lichen are added freely and hang below in a ragged tail. The entrance is at one side with a well-defined porch above it. The outside casing is first completed and it is then well stuffed with vegetable floss by way of lining. As with the last species the hen does all the building, the cock merely accompanying her and singing loudly as she works. He does not appear to take any share in the incubation, but is active in feeding the chicks as soon as they are hatched. Very small insects seem to be the chief food provided for them. Two eggs is the usual clutch.

The male has a very distinct eclipse plumage in which the underparts are yellow with a purple ventral stripe, but the assumption of this seems to depend rather on the individual than the season, as one may see males in this condition while others are breeding.

Cynniris zeylonica : The Purple-rumped Sunbird.

Almost everything written about the last species applies to this one, except that the males have no 'eclipse' plumage. It is just as common and wide-spread, and unless the birds are seen it is almost impossible to distinguish the nests and eggs. A slight difference lies in the fact that the nests of the present species tend to be placed higher up, sometimes forty or fifty feet high in the top of a tree, and that they breed very freely in September after the monsoon which is not characteristic of *asiatica*.

Cynniris minima : The Small Sunbird.

The tiny sunbird is common in the Wet Zone and the moister parts of the Inter-Zone. It is more of a forest and jungle bird than the others and ranges higher, up to the tops of the Ghats. The nests are neater in appearance as they are made largely of green moss with little cobweb and usually lack the tail of rubbish hanging below. They are also quite frequently well-concealed in a terminal tuft of leaves. They are suspended from the tip of a twig, generally fairly low down in a bush or sapling on the edge of a woodland path or clearing. I have only found two nests, one in December and one in April.

Arachnothera longirostra : The Little Spider Hunter.

I have never come across this bird though I have kept a sharp look-out for it. Nevertheless it must almost certainly occur as Sâlim Ali obtained it at Sakleshpur just over the border in typical Coorg Inter-Zone country.

Dicaeum concolor : The Nilgiri Flowerpecker.

Likely to occur, but not recorded as in the field it is impossible to distinguish from the next species. On the other hand as Sálím Ali only found it in the Billigirirangan Hills, it may be another of the high-level Nilgiri forms which reach their limit in that range.

Dicaeum erythrorhynchos : Tickell's Flowerpecker.

Extremely common all over the Province in cultivation or forest wherever there are trees afflicted with the parasites, *Loranthus* and *Viscum* spp. They feed voraciously on the berries, which pass through the body with great rapidity. The sticky mucous covering the seeds is quite undigested and on being voided they cling to any twig on which they fall. The flowerpeckers are undoubtedly the principal agents in the spread of these plants. They are very strong on the wing for such tiny birds, and fly high and rapidly and for long distances. They are birds of the canopy of the forest and seldom come below the tree-tops, while their nests are nearly always at a great height and exceedingly hard to find and even harder to reach when found. They are minute purses of green moss and spider cocoons lined with vegetable down, slung from the tip of a twig well-hidden in a bunch of leaves at the end of a lofty bough. Breeding takes place in Feb./March and again in September.

Piprosoma agile : The Thick-billed Flowerpecker.

Fairly common throughout the Inter-Zone and the adjacent deciduous forest, but I have not seen it on the higher Ghats or in the Dry Zone, and it is nowhere as numerous as the last species. They seem rather less dependent on the *Loranthus* than other flowerpeckers. They may often be seen carefully searching the extreme tips of the twigs of a leafless tree presumably picking up small insects on the buds. While doing this they have a characteristic habit of twisting the tail slowly from side to side. The nests, which are built in January and February while the trees are bare are quite unique. They resemble those of the last species in shape but instead of being hidden in a bunch of leaves they are fully exposed at the tip of a naked twig. Despite this they are far from easy to see, being so small and nearly always so high up. They are made of a peculiar reddish brown material apparently some sort of vegetable down woven into a solid felt, so compact that the nest may be crushed in the hand and will resume its shape when released.

Pitta brachyura : The Indian Pitta.

A regular and fairly numerous winter migrant. They turn up almost anywhere on their first arrival in October, and often very weary; understandably so considering the weakness of their wing power. During their stay in Coorg they frequent shady woodlands where they feed on the ground in the undergrowth, astonishing one with the flash of their brilliant colouring when they are disturbed and flutter weakly for a few yards. They are very silent and I have never heard them utter a sound. They have peculiar habit of bobbing on their long legs and at the same time jerking their almost non-existent tails like some mechanical toy. Some birds remain very late, up till

the end of May, but I have seen no sign of their ever attempting to breed in Coorg.

Picus xanthopygaeus : The Little Scaly-bellied Green Woodpecker.

A scarce resident. A few pairs may be found scattered here and there through the Inter-Zone and the Ghat sholas. It does not, I think, occur in the drier parts of the Province. As with the other woodpeckers, it is an early breeder excavating a hole high up in some dead tree in January or February.

Picus chlorolophus : The Yellow-naped Woodpecker.

A common species in the Inter-Zone and the neighbouring deciduous forest, wherever there is a certain admixture of evergreen. They are usually seen singly or in pairs, frequently in the company of the mixed flocks, but the families do not seem to keep together after fledging, as do so many other woodpeckers. Breeding takes place early in December/January. The site chosen is some rotten tree trunk in deep shade in a wooded ravine, and the hole is usually within 15 feet of the ground. On a number of occasions I have found it placed immediately under one of the large plate-shaped fungus growths which are so common on dead trees in damp positions. Two or three eggs form the clutch. These woodpeckers are quiet birds but occasionally utter a very distinctive note, a single loud, sharp 'chak'.

Dryobates mahrattensis : The Yellow-fronted Pied Woodpecker.

Occurs sparingly in the driest parts of the Dry Zone where cultivation is mingled with scrub jungle and scattered large trees such as tamarind, peepal, and banyan. They are usually seen in pairs and are quiet and inconspicuous.

Dryobates hardwickii : The Pigmy Woodpecker.

Commoner than is generally realised in the Inter-Zone and the deciduous forest belt. It is a very quiet, unobtrusive little bird living among the upper branches of high trees, and is easily overlooked. It prefers fairly open woodland. Breeding takes place from December to February. The nests are usually very high up and quite inaccessible. The hole is bored in some quite small dead bough and the entrance is frequently on the underside. This is one of the species which I have noticed drumming. It is also the only one which I have seen carrying insects to the young in the beak. All the larger woodpeckers appear to feed the nestlings exclusively by regurgitation.

Micropternus brachyurus : The Rufous Woodpecker.

This remarkable woodpecker is fairly common throughout the Inter-Zone and the deciduous forest wherever giant bamboo grows and the *Cremastogaster* ants, with which it is symbiotic, are found. They are quiet birds, usually seen singly, and seem to feed almost exclusively on the above-mentioned ants which build large black 'papier mâché' nests in treetops and tall bamboos. They breed in February and March in these same ants' nests. A hole two inches in diameter is bored in one side, and the interior excavated leaving

a wall an inch thick. What is so extraordinary is that this does not cause the desertion of the original owners who remain in occupation of the walls throughout the whole period of incubation and fledging. I have climbed to an occupied nest and been furiously attacked and yet found naked young inside completely unharmed. Shot specimens are said to have a peculiar acrid smell due to their diet of ants, and one can only assume that this extends to the young and protects them from their vicious little hosts. Certainly few birds can have such well-protected nest !

Brachypternus benghalensis: The Golden-backed Woodpecker.

Common throughout the Inter-Zone, the deciduous forest, and the more well-wooded parts of the Dry Zone. Generally the commonest woodpecker of the countryside, a noisy, conspicuous bird usually seen in small family parties, and an invariable member of the mixed flocks. Breeding takes place between December and February. The nest is excavated in the trunk or a main bough of a dead tree in open woodland or coffee plantations. It may be at any height from the ground, but is commonly between ten and twenty feet. The entrance is a neat round hole with the horizontal axis usually slightly greater than the vertical.

Dinopium javanense: The Three-toed Golden-backed Woodpecker.

Similar in every way to the last species. Their range very largely overlaps, but the present bird tends to favour a wetter biotope and is absent from the Dry Zone. It is nowhere nearly so numerous as *B. benghalensis*, and is much quieter. The nesting habits appear to be very similar. The two species are by no means easy to distinguish in the field, the best mark being the rump and lower back when seen in flight: crimson in this bird, black in *B. benghalensis*.

Chrysocolaptes guttacristatus: Malherbe's Golden-backed Woodpecker.

Very similar in habits and distribution to *B. benghalensis* and *D. javanense* but it prefers a wetter climate and higher altitude. They range through the evergreen forests of the Wet Zone up to the highest Ghat sholas, and abound in the coffee plantations of the Inter-Zone, but scarcely enter the deciduous forest. They are bold noisy birds usually seen in family parties. The call is a high, tinny scream, very distinctive. Breeding begins very early as I have found occupied nests in December, though apparently only one brood is raised. The same dead tree may be used for years in succession, a new hole being excavated each time. The nest of this bird can be distinguished at a glance as the entrance is oval with the long axis vertical, while the lower edge is bevelled off at a slope in a rather untidy manner. The normal clutch is two or three.

Chrysocolaptes festivus: The Black-backed Woodpecker.

May possibly occur very rarely in the Dry Zone. I have once seen it in a coconut plantation at Periapatam a few miles over the Mysore border.

Hemicircus canente : The Heart-spotted Woodpecker.

Common in the Inter-Zone and the deciduous forest, but not found in the Wet or Dry Zones. In fact their range coincides with that of the giant bamboo. They are odd little birds with ridiculously short tails and quaint jerky movements. Presumably owing to the shortness of the tail they do not assume the usual woodpecker attitude, braced against a tree-trunk or branch, but perch across a bough like a Passerine and search the small twigs rather than the main limbs for food. They are usually seen in pairs which keep in touch by a constant squeaky call, flying from tree to tree with a comic exaggeration of the typical bounding woodpecker flight. I have never been able to find a nest though they are strictly resident, but suspect them of excavating holes in the bamboos.

Dendrocopos javanensis : The Great Black Woodpecker.

Occurs throughout the Wet and Inter-Zones and occasionally in the deciduous forest, but is never numerous. It is essentially a bird of the deep forest, only found where there are extensive tracts of woodland with trees of the largest size. They are great wanderers, however, and are often seen in coffee plantations on the borders of forest. They live in small family parties for most of the year and are extremely noisy, the loud clanging calls being audible at a great distance. In spite of this they are extremely shy, especially at the nest. This is excavated early in January high up in some tall dead tree. The size of the circular entrance hole, a good five inches in diameter, serves to distinguish the ownership at once. The interior hollow is about two feet deep by a foot wide at the bottom. Though normally so noisy the birds are most careful to avoid being seen or heard in the neighbourhood of the nest, and will desert at once if they think they have been detected, even if no attempt is made to climb the tree. During incubation the brooding bird pops her head out of the entrance at the slightest unfamiliar sound, but flies off only if danger actually approaches. Most woodpeckers and barbets have this habit which has a definite protective value. The dark, clean-cut entrance shows up conspicuously at a distance, and the projecting head blocks this and looks like a natural branch stub.

The only nest I have been able to reach had four incubated eggs.

Vivia innominatus : The Nilgiri Speckled Piculet.

Probably more numerous than one suspects for as Sálím Ali points out it may very easily be overlooked. I have only seen one once in ten years' residence, when I found a nest in March in a dead branch of a large tree in a shady ravine forming an isolated strip of evergreen just inside the deciduous forest. The bird flew out with an almost inaudible squeak and remained hopping anxiously about among the top branches of a neighbouring tree, perching across and not along the twigs. The entrance to the nest was barely an inch in diameter, smaller even than that of *D. hardwickii*, while the chamber was about six inches in depth and two and a half in width. There were two glossy white, almost spherical eggs. There was an occupied nest hole of *Megalaima viridis* a foot higher up in the same stub.

Megalaima viridis : The Small Green Barbet.

One of the commonest birds of Coorg especially in the Inter-Zone. Their monotonous notes resound ceaselessly all day in all directions, and it would be almost impossible to find a spot anywhere in the wooded parts of the district during the dry season whence at least half a dozen could not be heard calling. They are fairly common in the Ghat sholas though scarce in the interior of extensive evergreen forest. They are also found in small numbers in the Dry Zone where one would expect to find them replaced by *T. zeylanicus*. The latter species, however, does not seem to occur. Their real home is the coffee land where the shade trees provide ideal living conditions. The various fig trees furnish a supply of food throughout the year, and those killed and left standing during shade control work provide the dead soft-wooded stumps which they especially prefer for nesting purposes. They are almost entirely frugivorous, but I have seen them catching large insects on the tree trunks, and they sometimes join in the feast when there is a flight of termites, though their efforts at fly-catching are clumsy and not very successful. The principal breeding season is from February to April, but they start excavating holes as early as September. These do not appear to be used unless for roosting as I have never found eggs before New Year. Work goes on in a desultory manner. There are two or three days of feverish digging and then the job is left for a week or so, or may even be deserted. Two eggs are laid. The young are fed on fruit from the earliest stages. At first this is regurgitated, but later given direct. A fresh chamber is normally dug out for each brood, but I have once or twice found them breeding in what appeared to be an old hole. The nests may be excavated in any dead soft-wooded tree at any height from the ground, sometimes even in a fence post. In Coorg quite the favourite species is *Ficus glomerata*, one of the commonest coffee shade trees. This, when two years dead, has a smooth barkless outer surface with a hard rind half an inch thick while the interior is soft punk which can be dug out with the fingers.

Barbets are quarrelsome birds and though several pairs may breed in the same tree, and scores be seen feeding together on a big fig in fruit, there is continual bickering and querulous argument which often ends in actual fighting.

Megalaima haemacephala : The Crimson-breasted Barbet.

Confined to the Dry Zone being replaced in the Inter and Wet Zones by next species. Its range extends up to the deciduous forest where the two overlap but rarely intermingle, the present bird being found in the drier and more open parts, while *X. rubricapilla* prefers areas where there is an admixture of evergreen. It is nowhere numerous in Coorg, suitable fruit trees and nesting sites being scarce in its range.

Megalaima rubricapilla : The Crimson-throated Barbet.

This species has practically the same range as *Megalaima viridis* and is as common. Its metallic 'tonk, tonk, tonk' uttered for minutes together without a break is one of the most familiar bird calls in

Coorg. In feeding and breeding habits they resemble their larger cousin. By preference, however, they choose small boughs in which to excavate their nest holes, sometimes so slender that the walls of the chamber are not more than a quarter of an inch thick. They show great skill in their carpentry and rarely break through the sides and spoil the work. A horizontal bough is often chosen and the entrance is on the under side. February to March are the principal breeding months and two eggs are laid.

This species is even more exclusively frugivorous than *M. viridis* and I have never seen insect food being taken.

Cuculus poliocephalus : The Small Cuckoo.

Has been recorded from Coorg. I have not seen it myself.

Hierococcyx sparveroides : The Large Hawk-Cuckoo.

I suspect that this bird occurs as I have on several occasions seen a very large Hawk-Cuckoo, but I have not definitely identified it.

Hierococcyx varius : The Common Hawk-Cuckoo.

A common winter migrant throughout the Province. I have only seen them between October and April, and while with us they are silent and furtive. I have never heard the call, so it seems unlikely that they breed here.

Cacomantis merulinus : The Plaintive Cuckoo.

Not uncommon in the Inter-Zone, but I have been unable to determine its status. It appears to be a wandering bird, stray specimens turning up at any time of year and disappearing after a few days' stay. I have heard them calling but have no evidence of their breeding. They are quiet, skulking birds living in scrub and lightly wooded country. I have seen one feeding on a repulsive looking scarlet bug which lives on rotten fruit and which from its gaudy, warning colouring one would have expected to be highly distasteful.

Penthoceryx sonneratii : The Banded Bay Cuckoo.

It is surprising that the Mysore Survey did not come across this bird as it is the commonest of the small cuckoos in Coorg and the only one of which I have definite evidence of breeding. It is fairly numerous in the Inter-Zone and lower Ghat sholas. I have not seen it in the Dry Zone. I suspect that these birds migrate during the monsoon as one does not encounter them between July and December. In March and April they become very noisy, and their loud 'crescendo' call is continually uttered. They inhabit much the same country as *C. merulinus*, fairly light forest and well-wooded cultivation, but are more arboreal and keep to the treetops. The usual host for their young is the Iora, though I have once seen one being fed by a pair of Magpie Robins. Early in the monsoon when the big mixed flocks first form, one may often see a young of this cuckoo in the party being attended by its foster parents. It keeps up a continuous loud, querulous call, and though strong on the wing and apparently perfectly capable of looking after itself, makes no attempt to find its own food.

***Surniculus lugubris* :** The Drongo Cuckoo.

I believe I once saw one in the Dry Zone but could not be quite sure, and the record must be taken as doubtful.

***Clamator jacobinus* :** The Pied Crested Cuckoo.

Occurs apparently as a scarce and irregular winter migrant. I have seen them in the Dry Zone, but more frequently well up on the Ghat hillsides on the borders of sholas. They are evidently on passage as they are here today and gone tomorrow. I have never heard them calling and do not think that it is at all likely that they breed in Coorg.

***Clamator coromandus* :** The Red-winged Crested Cuckoo.

Once seen in the heart of a dense evergreen hill shola at about 4,500 ft. in May. It was skulking silently in the undergrowth and was very tame, allowing close approach and observation, so I have no doubt of the record. Evidently a mere rare straggler to Coorg.

***Eudynamis scolopaceus* :** The Indian Koel.

Resident in small numbers in the Dry Zone. It is a regular visitor to the Inter-Zone in the hot weather apparently to breed though I have never seen young birds there. From January to March they are found in cultivation and lightly-wooded grazing grounds near villages, wherever in fact their hosts, the crows, abound. They betray their presence by their reiterated crescendo call, but are otherwise somewhat shy, keeping to the interior of leafy tree-tops. When moving from one to another, they dash across the open space with a great flurry and bustle as if in a desperate hurry, probably to escape the attentions of the crows, who lose no opportunity of harrying them. They leave the district on the outbreak of the monsoon. Males seem greatly in the preponderance, but this may be because they are more conspicuous.

***Rhopodytes viridirostris* :** The Small Green Malkoha.

A resident in the Dry Zone in small numbers. They certainly breed there though I have not found the nest. In the cold weather from November to March they wander up into the Inter-Zone where they are found on scrubby downland and grazing grounds, but not up to any height on the Ghats. It is a silent, solitary, skulking bird seldom seen far from some lantana brake where it can hide if alarmed.

***Centropus sinensis* :** The Common Crow-Pheasant.

A very common bird all over Coorg in almost every biotope, though scarcer in the more open parts of the Dry Zone. They ascend the hills to the highest sholas on the Ghats and are equally at home in the steamy tropical jungles at their western foot. As one would expect with a bird of such weak wing power, they are extremely sedentary, each pair remaining year after year in their own comparatively restricted territory. They breed in tangled cane brakes or trees in evergreen forest smothered in creepers and lianas, while in the drier areas a favourite site is in the heart of a clump of giant bamboos where the interlocking stems hold up a mass of dead leaves and debris and form an impenetrable stronghold. They are very adaptable birds

however, and are one of the few species which have made themselves really at home in tea cultivation, where the open nature of the land, and the constant weeding and tidying that goes on, is by no means to the taste of most forms of bird life. Here they breed in the crowns of pollarded *Grevilleas* lining roads or planted as wind-breaks. The nests are simply made by twisting the living, growing leaves into a rough dome open at both ends, and despite the size of the bird they are remarkably inconspicuous. The usual breeding season is in June and July, during the rains, but after the first and heaviest burst.

Psittacula eupatria: The Alexandrine Parakeet.

I have seen this species in Coorg on two occasions only; once a solitary bird in the Dry Zone near Hebbale, and once a large flock flying home at sundown to roost in a patch of sugarcane near Yaslur in the extreme north of the province. This, though well in the Inter-Zone, is much more open country than most of Coorg—treeless downs with coffee and cardamom, and paddy cultivation along the streams in the valleys.

The large size of these parakeets and their very distinctive call make them unmistakable.

Psittacula krameri: The Rose-ringed Parakeet.

A common bird in the Mysore maidan, occasionally wandering over into the Coorg Dry Zone.

Psittacula cyanocephala: The Blossom-headed Parakeet.

The common parakeet of Coorg, extremely numerous throughout the Inter-Zone and the deciduous forest and also found in the Dry Zone. They avoid, however, the Wet Zone forests and are not seen above 4,500 ft. While mainly frugivorous, they appear to eat large quantities of leaves and buds and are extremely wasteful and destructive in their feeding habits. At certain times of year they are a plague in a garden. A flock will strip a hibiscus hedge bare of every leaf in a couple of mornings. They are highly sociable and live in large flocks. They breed early, pairing off in the first week of January. They nest usually in old barbet or woodpecker holes or natural hollows, enlarging them considerably to suit their requirements. One can always tell when a parakeet has been at work by the shape of the chips of wood at the foot of the tree. A woodpecker or barbet chisels out long slivers, while the parakeet bites out dice-shaped chunks. Two or three eggs are laid. The hen alone incubates and during the process her long tail feathers become very abraded and worn down to less than half their proper length. The young are fed by regurgitation and at long intervals, certainly not oftener than once an hour. In nests which I have kept under observation, the hen alone supplied food. By early April the young, distinguishable by their green heads and short tails, are all on the wing.

Out of the breeding season, these parakeets roost communally in large, dense-foliaged trees. They are very noisy birds, but their voices are not unmusical and are quite pleasing to the ear.

Psittacula columboides: The Blue-winged Parakeet.

Replaces the last species on the higher Ghats up to 5,000 ft. and in the wetter parts of the province. They do not extend to the Dry Zone, but over most of the Inter-Zone the two occur side by side in equal numbers. In habits this bird is entirely similar to *P. cyanocephala*, and is quite as noisy, but in this case the screams are extremely harsh and discordant.

Sálim Ali states that in Mysore this is the only Parakeet found in the coffee plantations, but in Coorg both this and *P. cyanocephala* occur and breed freely in coffee cultivation.

Coryllis vernalis: The Indian Loriquet.

Very common throughout most of the province in well-wooded areas. It is not found much above 4,000 ft., and I have not seen it in the Dry Zone. These little birds, though almost as numerous as the parakeets, are not nearly so conspicuous. Their small size, leaf-green colouration, and predilection for the highest treetops all help to conceal them, while unlike their larger relatives they are by no means noisy, their only note being a low, squeaky, bat-like trill. They do not flock, and except when the young have just flown are seen singly or in pairs. They feed largely on the nectar of flowering trees, clambering from truss to truss with the aid of beak and claws in a highly acrobatic manner, being quite as much at home hanging upside down as when the right way up. They breed in January or February in natural hollows of trees at any height from ten feet upwards. The holes are enlarged to suit, and a small pad of green leaves is added by way of lining. In this they differ from the parakeets, none of whom line their nests. The clutch is a large one, 5 or 6 eggs being laid. The young are fed by regurgitation and there appears to be only one brood annually.

Coracias benghalensis: The South Indian Roller.

Quite a common resident in the open, cultivated Mysore 'maidan' country round Periapatam and Hunsur beyond the eastern border of Coorg. I have found them breeding in holes in dead palm trees killed by excessive toddy tapping. In the province it is a regular but casual winter visitor, turning up in clearings in the deciduous forest, and on open grazing grounds in the Inter-Zone, but seldom lingering in one spot for more than a day or two. They are sluggish birds, spending hours together perched on a telegraph wire or treetop, flying down at intervals to catch a grasshopper or other insect on the ground. Their powers of sight must be phenomenal as I have frequently seen one spot some quite small prey at a distance of at least a hundred yards. Comparatively dull-coloured while at rest, the sudden flash of brilliant blues as it opens its wings is positively dazzling. In the breeding season they become more active, indulging in remarkable antics on the wing, rolling and swerving like a tumbler pigeon and uttering the most diabolical screams. An odd pair or two may breed in the Dry Zone among the cultivated lands along the Cauvery, but I have never found a nest myself.

Eurystomus orientalis : The Broad-billed Roller.

Not yet seen in Coorg, but it is extremely probable that it does occur in the clearings and rubber plantations in the tropical evergreen forest on the western slopes of the Ghats.

Merops orientalis : The Indian Bee-eater.

A very numerous winter visitor all over the province except in the most thickly forested areas. They appear in early October, and the great majority depart in March to breed. Odd solitary pairs, however, remain and nest in sandpits or roadside cuttings usually in grazing land or on the Ghat downs. During the winter months they are highly sociable, living in large flocks. They are intolerant of cold and on a chilly January morning, 40 or 50 little towzied green balls can often be seen packed tight as sardines along a bough, refusing to stir till long after sunrise when the world has begun to warm up. They are very fond of taking dust baths on sandy roads.

Breeding takes place between December and February. The nest tunnels vary considerably and may be excavated in vertical banks or in almost level ground. Unless the soil is very intractable, they are of considerable length, 4 feet or more, and wind and twist to avoid stones and roots. Wherever possible they are sloped slightly upwards. The bird pecks away at the soil and then throws back the loosened material with a furious scratching action using both legs so that the dust flies out in a cloud. A newly excavated hole can always be recognised by the two grooves made by the feet in the floor of the entrance. Both birds feed the young which number five or six. The latter do not leave the nest until they are fully fledged and already strong on the wing.

Merops superciliosus [javanicus] : The Blue-tailed Bee-eater.

Common along the seashore on the Malabar coast. I have only once met them in Coorg when a small colony of three or four pairs lived for some months around Halagote Kere, the only tank of any size in the province, in the Dry Zone. I did not actually find the nests, but they certainly bred there as I saw them feeding very newly-flown young on 25th May. They left at the beginning of the rains and never returned in subsequent years. In habits they closely resemble the last species.

Merops leschenaulti : The Chestnut-headed Bee-eater.

A well distributed resident species throughout the province. They are water-loving birds and spend most of the year in small flocks along the Cauvery and other large rivers, both in their upper reaches where they flow through the deciduous forest and in the Dry Zone where the banks are open and cultivated. During the monsoon the flocks leave the rivers and wander far and wide over the countryside. They breed colonially, half a dozen pairs scattered over a hundred yards of ground, excavating their holes in sandbanks on the river's edge, avoiding by preference anything like a vertical face. In fact they often choose almost level ground and such soft sand that it is remarkable that the holes do not cave in. The tunnels vary from two to six feet in length, but are usually nearer the latter figure. The season is March to May.

Five or six eggs are laid. Like so many insectivorous birds, they bathe and drink on the wing, flying down to the water and dipping and splashing for a second before rising again.

Alcemerops athertoni : The Blue-bearded Bee-eater.

An uncommon bird though widely distributed through the province in wooded country. They are most commonly seen on the edges of clearings and young teak plantations in the deciduous forest. They are sluggish birds compared with their smaller relations, and spend most of their time perched on an outstanding bough, only taking wing when some insect is actually in view, and rarely if ever soaring and cruising round in flight. The note is a harsh, low, most distinctive croak audible at a surprising distance and like no other bird note. The only attempt at breeding which I have come across was when a pair started excavating a tunnel in September in a roadside cutting in a coffee estate. It was abandoned after reaching a length of eighteen inches and the birds disappeared without making a second attempt. This rather unusual breeding season was confirmed some years later at the other end of India in the Lushai Hills of Assam. In a hundred-mile march from Aijal to Lungleh in early October, I passed literally dozens of tunnels in process of excavation in the banks of the mule track in bamboo jungle.

Ceryle rudis : The Pied Kingfisher.

Common on the larger rivers such as the Cauvery, Hemavathi, and Lakshmantirtha after they leave the forest and enter the Dry Zone where their banks become open and cultivated. They are exclusively fish-eaters and do all their hunting on the wing, flying up to a height of fifteen to twenty feet where they hang hovering motionless on rapidly beating wings, the tail spread and bent forward as a brake and the bill pointed vertically downwards while they scan the water for anything edible. If prey is seen the bird turns over and plunges vertically down on it. If not, after a few seconds it flies on to hover again in a different spot. They are early breeders, excavating a hole in January in some vertical clay bank on the riverside, three or four feet above water-level. It is not usually of great length, 12 to 18 inches being normal. The chamber is some nine inches in diameter and five or six eggs are laid. As with all kingfishers the nest becomes extremely foul before the young finally leave. Both chamber and tunnel are choked with a stinking litter of fish-bones, scales, and excreta, swarming with maggots. The young only emerge when fully developed, and remain dependent on their parents for a couple of weeks. It is a delightful sight to see half a dozen youngsters sitting on a rock in mid-stream being fed industriously by the old birds.

Alcedo atthis : The Indian Common Kingfisher.

Found throughout Coorg wherever there is water along the streamlets running down from the high hills, whether they run through open downs, thick forest, or paddy fields, and equally on the larger rivers both in the Wet and Dry Zones, and also on nearly every tank or cattle pond. They resemble their near relative the European Kingfisher in habits, feeding on small fish and tadpoles which are caught

by diving from a perch overhanging the water, though they occasionally hover like the Pied Kingfisher. The usual breeding season is in March/April but I have found a nest in September so that there may be two broods. The tunnel, 3 or 4 feet long, is excavated in a vertical river bank, but I once found one in the wall of a dry well three feet below ground level and two hundred and fifty yards from the nearest water.

Alcedo meninting : Beavan's Kingfisher.

This species which closely resembles the last is distinguishable in the field by the lack of the white shoulder patches and the deeper blue of the upper parts. It is a rare bird. I have only once seen a pair on one of the main tributaries of the Cauvery where it flows through heavy bamboo forest. Though only a sight record the birds were tame and I was able to observe them carefully and am confident of the identification.

Ramphalcyon capensis : The Brown-headed Stork-billed Kingfisher.

Found wherever a suitable biotope occurs though never numerous, as each pair occupies a large territory. They are confined to the larger rivers where they flow through thick, wild forest, and will never be seen in open country. They are shy birds, spending much of their time perched in some thick tree overhanging the water. They are the possessors of portentous voices, bursting forth at intervals into a terrifying cacophony of wild, shrieking laughter, bobbing up and down on the perch, and flicking up the short tail till it almost touches the back. Breeding presumably takes place in the hot weather, but I have never succeeded in finding a nest or seen young, though the old birds are undoubtedly resident throughout the year.

Halcyon smyrnensis : The White-breasted Kingfisher.

The commonest kingfisher in Coorg, and unlike the others by no means confined to the waterside. They are most numerous in and about paddy fields, but one also finds them in cultivation or jungle clearings a long way from the nearest pond or stream. They ascend the hills to the limit of paddy cultivation, and elsewhere are numerous in fairly open country throughout the Wet, Inter, and Dry Zones. They feed very largely on big insects, small lizards, and land-crabs, employing the typical kingfisher tactics of swooping down from a perch. They are also quite at home in more normal surroundings along the rivers and as adept at fishing as the rest of the family. The call is a loud, piercing laugh. Breeding takes place in late March and April, the tunnels being excavated in vertical banks, sand-pits and roadside cuttings often far from water. The very first nest I found was in a hole left for drainage purposes in the masonry of a bridge, but they generally dig their own dwelling. The passage is often quite short, 18 inches or less. Four to six eggs are laid.

Halcyon pileata : The Black-capped Kingfisher.

This is a coastal species, common on the brackish estuaries, backwaters and mangrove swamps of the Malabar Coast. Nevertheless, I have met it twice in Coorg; once on a small stream running through a coffee plantation at 3,000 ft., and once on the Cauvery some five

miles away. In the former case I saw a solitary bird on one occasion only, in January. Two years later, possibly the same bird turned up in the same spot and remained for several months, in fact until the break of the monsoon. In size and build they resemble *H. smyrnensis* closely, but apart from the black head, may be distinguished in the field by the deep, purplish blue upper parts which in *smyrnensis* are a lighter shade tending to green.

Dichoceros bicornis : The Indian Great Hornbill.

Must almost certainly occur in the heavy rain forest of the western slopes of the Ghats, but I have not come across it.

Hydrocissa coronata : Malabar Pied Hornbill.

Found in the Wet Zone rain forest on the Ghat slopes running down to Malabar. Seen in small parties, but not at all common.

Tockus birostris : Common Grey Hornbill.

Common in the Dry Zone wherever there are large trees such as roadside avenues of banyans, and also found throughout the deciduous forest belt. They are usually seen in small flocks of half a dozen individuals though I once saw one of at least fifty. They are noisy birds with a great variety of loud, weird calls. The only nest I have come across was in a hole in a big horizontal bough, 50 feet up in an enormous wild fig standing on the bund of a tank in the Dry Zone. This was in April, and one bird only was bringing food (fruit of some sort), so presumably this was the male feeding his sitting mate.

Tockus griseus : The Malabar Grey Hornbill.

Replaces the last species in the evergreen forest of the Wet Zone where they are fairly common from almost sea level up to 4,000 ft. They are strictly forest birds, more often heard than seen. Like the last species they live in small flocks and are equally noisy. I have not found a nest.

Upupa epops : The Hoopoe.

Permanently resident in the Dry Zone, and a common dry weather visitor to the more open parts of the rest of the province, arriving in September, remaining to breed in February/March, and only leaving in June at the onset of the monsoon. They are essentially ground feeders, running about actively on their short legs, picking up ants and small insects, and probing the cracks and crannies of the soil with their long, curved bills. In the Nilgiris they breed freely in holes in stone walls and buildings. In Coorg I have found them always to choose natural hollows in trees, especially clefts and splits in the trunks, the result of lightning blast or the breaking of a major limb. Where the entrance is a very narrow one, it often presents a pecked appearance the birds evidently enlarging it sufficiently to allow easy access, though considering their long, delicate bills, this work must be very difficult for them. Half a dozen greeny-white, rough-shelled eggs are laid. The hen apparently does all the incubation. The cock at this time roosts somewhere in the neighbourhood. In the case of a nest near my bungalow, he used to occupy a wide fork in

the trunk of a small tree some three hundred yards away, in which he squatted instead of perching on a twig in the manner of most arboreal birds. The eggs are laid on a pad of moss and hair, and soon become very stained as there is no attempt at sanitation, and when the young hatch the hole becomes extremely foul.

The familiar double call from which the bird gets its trivial name is uttered with closed crest, swelling neck, and bill pointed vertically downward. It has the effect of coming from a distance even when the caller is close at hand. During courtship or when alarmed or angry it has another call, a harsh, croaking scream. In the courtship display the crest is erected and the wings spread and fluttered to show off the black and white barring. I have seen copulation taking place even when incubation was well advanced which seems unusual, the cock calling the hen off the eggs for the purpose. Both birds take part in feeding the young, and work most industriously. They seem to give themselves a lot of unnecessary labour. In the case of the above-mentioned nest near my hungalow, they used to fly to a maidan at least a quarter of a mile away before starting to search though there were precisely similar and apparently equally fruitful feeding grounds much nearer at hand.

Harpactes fasciatus : The Malabar Trogon.

Scarce but widely distributed. They seem to be great wanderers, singletons or pairs turning up for a few days at a time almost anywhere in the deciduous forests and coffee plantations in the Inter-Zone, or the Ghat sholas of the Wet Zone up to high levels. Although I cannot prove it, I suspect that the rain forests of the Malabar slope are their real home. They are sluggish birds, usually encountered in the interior of heavy forest, perching for long periods on a bough, and flying out occasionally to take an insect on the wing. The only note is a low croak seldom uttered. The long tail, square at the tip and the same width throughout its length, is a very distinctive feature. I have once found a nest. This was in March and it was in a big, natural hollow in a rotten branch stub, twenty feet up in a fig tree in a coffee plantation. The three eggs were laid on the decaying chips with no attempt at a lining.

Micropus melba : The Alpine Swift.

Colonies of these swifts live on most of the higher precipitous crags of the Ghats. While birds of such great wing power must cover enormous distances during the day, they appear to return to their home cliffs to roost, at any rate during the Dry Weather. In the monsoon the hilltops are wrapped in almost continuous fog and rain, and it is probable that they migrate as Salim Ali records of the Jog birds, but I have no idea where they go as I have never seen them in Coorg except on the hills. They breed in January in clefts in the face of cliffs, usually in some quite inaccessible position. The nest is a flimsy half saucer of feathers and straw cemented with saliva. One colony of my acquaintance builds within 6 feet of a Shahin Falcon's eyrie, neither species taking the slightest notice of each other. In addition the neighbouring rocks are festooned with the combs of the big Rock

Bee, but the swifts fly in and out among them without the least compunction.

***Micropus affinis* :** The Common Indian House-Swift.

Locally common. Colonies of varying size breed in large buildings in the chief towns, such as the Fort at Mercara, and the Kachcheri at Somwarpet. They also use the underside of big bridges and more rarely cliffs on the Ghats. Their breeding season seems to differ considerably according to locality. They nest in June and July under the arches of bridges over the Cauvery in the Dry Zone. This is during the rains which, however, are light in that area, and it is probably the season of maximum insect abundance. The large colony on Mercara Fort in the Wet Zone only starts operations in September after the worst of the cold, wet monsoon weather is passed. The nests are built of feathers, straw and any air-borne rubbish, cemented with saliva, and are more or less hemispherical with a small entrance hole. But usually forty or fifty are glued together in one amorphous lump, so that it is impossible to tell their real shape.

***Chaetura giganteus* :** The Brown-throated Spinetail.

This grand swift is something of a mystery. They turn up regularly in the wake of the violent thunderstorms which mark the end of the Dry Season in April and May. Large numbers appear in open country, swooping low over the newly moistened ground, feeding on the swarms of awakening insect life. They fly at an immense speed, and as they sweep past their wings make a noise like a sword cut. At other times of year they are rarely seen, though they probably breed in the Ghat forests. Unlike most swifts they are silent birds.

***Indicapus sylvaticus* :** The White-rumped Spinetail.

Quite a common species, but like the last puzzling in its distribution. They are seen in large flocks, most often along rivers but they may turn up anywhere. They seem to have no fixed abode and I have never found them breeding. They are, however, mainly forest haunters and I have rarely met them in the Dry Zone.

***Collocalia fuciphaga* :** The Edible-nest Swiftlet.

Not Common, but colonies exist on some of the higher and craggier hills of the Ghats. The only actual breeding site with which I am acquainted is beyond the Coorg border on the Kudere Mukh, the highest peak of the Mysore section of the Ghats. Here twenty or thirty pairs nest in the belfry of a ruined Jesuit chapel at over 7,000 ft. The nests are small, shallow half-saucers, largely composed of whitish, isinglass-like saliva with a plentiful admixture of green moss. The males and non-breeding members of the colony roost beside the sitting birds, clinging back downwards to the rafters on which the nests are glued. The above colony and the only other I have seen—in Ceylon—were both breeding in March. Two eggs are laid.

***Hemiprocne coronata* :** The Indian Crested Swift.

A common species in the deciduous forest and the neighbouring parts of the Dry and Inter-Zones. They are birds of fairly light, open

woodland country. While strong on the wing they are not nearly such wanderers as the true swifts, and remain in more or less the same area throughout the year except perhaps in very stormy weather. They perch freely on trees. Breeding takes place from late February until April. Three or four pairs usually nest within a few hundred yards of each other. The nest is a minute half-saucer an inch and a half long by an inch wide, just large enough to contain the single egg. It is composed of a grey, horny substance two or three millimetres thick, apparently a mixture of dried saliva and shreds of lichen. This is glued to the side of a thin, bare bough in a treetop. It may be sixty feet up in a giant *Bombax*, but often a low scrubby tree not twenty feet high is chosen. The incubating bird perches on the bough in the normal manner, and covers the egg with her breast feathers. The only way of finding a nest is to watch until a bird is noticed continually returning to a particular perch, as the nest is quite undetectable from below. The young are clad in grey down, and when not actually being fed remain posed in a state of rigid immobility, most excellently camouflaged as a broken lichen-grown stub. In this they resemble the young of *Hemipus* and *Tephrodornis* which breed in similarly exposed positions and whose nests are almost though not quite so exiguous.

Caprimulgus macrourus : The Long-tailed Nightjar.

Occurs in the Inter-Zone, though I cannot speak for the other parts of the province. They may be distinguished from the other two Coorg nightjars by the darker plumage. They frequent downland and grazing grounds, spending the day roosting on the ground among the dead leaves in some thicket. The only nest I have found was in just such a situation in March. The sitting bird was so well camouflaged by her cryptic colouration that on returning to the nest a second time I stood within a yard without being able to see her, and until she flew off imagined that the eggs had been stolen. The two eggs are quite unlike the usual nightjar type. They are the normal shape, a regular oval equal at both ends. But in colouring they are a uniform pale coffee with small black spots. They are laid on the bare ground with no attempt at a nest. When returning after a disturbance, the bird would alight within a foot of the eggs and shuffle on to them. The young are clad in cinnamon down and almost from the moment of hatching are capable of crawling away and hiding under dead leaves, if frightened.

Caprimulgus indicus : The Jungle Nightjar.

The commonest nightjar in Coorg, particularly in the deciduous forest. They have a particular predilection for squatting on roads at night. Driving through the jungle after dark, one flushes dozens of them from the dusty surface, their eyes gleaming like rubies as they reflect back the headlights of the car. They breed in the open, in clearings in forest or on rocky outcrops. The nesting season is in March and April. Two eggs are laid, sometimes in the shade of a bush, but often right in the open on some rocky slope fully exposed to the blazing hot weather sun.

Caprimulgus asiaticus: The Little Indian Nightjar.

Very similar to the last species in habits, but confined to the Dry Zone where they abound in open scrub and cultivated country. They can be distinguished from the other Coorg species by their small size. They breed rather late in April and May, after the first showers. The eggs are laid usually on some stony outcrop, fully in the open.

Caprimulgus monticolus: Franklin's Nightjar.

Never identified, but may well occur.

Asio flammeus: The Short-eared Owl.

A rare visitor. The only ones I have ever seen were the twenty or so referred to by Sálím Ali in the Mysore Survey, at Hebbale in the Dry Zone in January. They were roosting on the ground at the foot of bushes at intervals of a few yards. I returned to the place on a number of occasions after Sálím Ali's visit, and the birds remained in the area for several weeks. Each retained its particular roosting spot where it could be flushed at any time through the daylight hours.

Strix indranee: The Brown Wood-owl.

This bird has been recorded from Coorg. I have not definitely identified it myself in the province, though it is a common bird in the Nilgiris.

Ketupa ceylonensis: The Fish-owl.

Found throughout the province, except in the Dry Zone, along streams and rivers and in the neighbourhood of swamps, preferably in forest. They rarely stray far from water. In a well-shaded locality they are more diurnal in habit than most owls. They appear to feed largely on frogs and crabs. I have not found the nest, but suspect them of breeding in hollows and forks of the huge wild mangoes and other large trees which abound along the banks of the Coorg rivers.

Bubo bubo: The Indian Great Horned Owl.

A very large horned owl is widely distributed, but nowhere numerous in the province. I had always put it down as *Huhua nipalensis*, but, in view of the findings of the Mysore Survey, it is likely to be this species. They are commonest in the deciduous forest. They are strictly nocturnal, spending the day perched in some thick, creeper-clad tree. When driving at night along a forest road, one occasionally sees them perched on a milestone or boulder by the roadside, presumably waiting to pounce on any rat or small mammal exposing itself on the public highway. Their call is a low, rumbling murmur. A pair used to frequent some large trees in my garden, and one could easily mistake their voices for those of two humans talking in an undertone.

Otus bakkamoena: The Scops Owl.

Never actually identified, but a very small owl which can hardly have been anything else used to visit my garden at night, and perch in a tree-top, uttering a double noted call for minutes together.

Athene brama: The Spotted Owlet.

Very common indeed in the Mysore 'maidan'. It occurs somewhat sparingly in the cultivated portions of the Coorg Dry Zone.

Glaucidium radiatum: The Jungle Owlet.

Fairly common in the deciduous forest, extending into the scrubby jungle on the edge of the Dry Zone. I have never seen it in evergreen country. The only nest I have found was in March, in a hole twenty feet up in a teak tree in light, open woodland. There were three eggs reposing on a musty smelling mass of pellets, largely composed of the fur and bones of mice. Both birds were in the hole so that it looks as if the male roosts beside his mate while incubation is going on. It is a comparatively diurnal bird, actively on the wing throughout the day except perhaps during the hottest hours.

Ninox scutulata: The Hawk-Owl.

Has been recorded, but I have never come across it myself.

Sarcogyps calvus: The King Vulture.

A regular resident, but never numerous. In the dozens of White-backs which gather round any dead bullock, one usually sees one or two birds of this species. They live up to their name and keep the others at a distance. I suspect them of breeding on some of the precipitous crags which rise up on the edge of the Dry Zone in the N.E. of the province, but I have never found an eyrie.

Pseudogyps benghalensis: The White-backed Vulture.

The common vulture of the province. At almost any time it is only necessary to scan the sky for a few moments to see one or more circling round at an immense altitude, and the carcass of any large animal left lying in the open attracts scores to the feast in a very short time. They squabble and fight over the carrion, braying like donkeys, and gorging themselves until almost too bloated to fly. I have not, however, been able to find any breeding colony in Coorg though there may be one somewhere on the forested cliffs of the Ghats.

Gyps fulvus: The Indian Griffon.

Gyps indicus: The Long-billed Vulture.

Neither positively identified, but they probably occur as I have met them in the Nilgiris, and Salim Ali records them from Jog in the Mysore Ghats.¹

Neophron percnopterus: The White Scavenger Vulture.

While numerically not so abundant as the White-backed Vulture, this is a much more familiar bird. The White-backs when not feeding spend their whole time soaring high in the sky, while the Neophron,

¹ See Correction on p. 236 of Vol. 45 of the *Journal*. The birds from Mysore were evidently all *indicus*. The record of *fulvus* was due to mistaken identification. EDS.



Egyptian Vulture.



Photos

Author

Shahin Falcon.



Jerdon's Long-tailed Nightjar.



Photos

Author

Great Stone Plover.

though a magnificent flier, passes much more of its life on the ground. They are unable to get a look in at the bigger banquets attended by their larger relatives, and have to work to obtain a living on the filth and scraps round villages, a large part of their food being human excrement. The towns and larger villages each support a number of pairs. I have been well acquainted for five or six years with one pair whose foraging ground is the little town of Somwarpet in N. Coorg. They bred annually on the rocky crag of Alikutty, 3 miles away, using a ledge on a cliff fifty feet high. The nest consists of a few filthy rags by way of a lining with bits of stick, bones and lumps of dung scattered round as decoration. In five consecutive years, one egg was laid on three occasions and two twice, but never more than one chick was hatched. The incubation period is a long one. The egg is laid in early February and the young bird does not leave the nest until the end of April. The sitting bird seems to be much troubled by parasites as is hardly surprising, and is continually pecking and scratching various parts of its anatomy. The young bird is fed at long intervals by either parent on scraps of carrion and other doubtful delicacies. Although such a dirty feeder it has some idea of sanitation, and at a very early age learns to scramble to the edge of the nest and void its droppings over the side.

Falco peregrinus [*peregrinator* Sundevall]: The Shahn Falcon.

Nearly every one of the higher, rock-crowned peaks along the line of the Ghats has its pair of these magnificent falcons, as well as several of the lesser hills along the ridge bounding the province on the N.E. Each pair seems based permanently on its particular stronghold though ranging over a wide area when hunting. The eyries are usually built on a ledge on some totally inaccessible precipice. The only one I know which is at all easily approachable is half way down a cliff some 150 ft. high on the Alikutty Rock referred to in my account of the Neophron, but half a mile away from the nest of the latter, at the other end of the crag. It is on a broad grassy ledge ten feet long by six at its widest, overhung by a jutting nose of rock. It is not hard to reach with the aid of a rope, but is well protected by swarms of the fierce Rock Bees whose combs hang from the rock-snout above. It was only when one year these had been smoked out by the Kurumbas, a local jungle tribe who are ardent honey-hunters, that I was able to get down. I found three eggs laid in a scrape in the grass with no attempt at a nest, on 15th February. On reaching the ledge it was found that I could not be pulled up again owing to the overhang, and I was marooned there for several hours while another rope was brought to allow me to go on down to the bottom of the cliff. Though I was sitting not a couple of yards from the eggs, the falcon returned within a quarter of an hour and brooded fearlessly, allowing me to move and take photographs. She was so close that I could hear her panting in the heat as she sat with open beak. At intervals she rose and stood over the eggs, shading them with half-spread wings. I never saw any prey being brought in, but judging by remains at the cliff foot, parakeets from a considerable portion of the food. The fledging period is prolonged and the eyasses are not on the wing until well into April. During the incubation period, the tiercel when not hunting kept watch from a neighbouring pinnacle.

Falco tinnunculus (objurgatus ?): The Indian Kestrel.

A resident subspecies of kestrel is found on the higher hills of the Ghats breeding in holes or ledges of the cliffs, usually in very inaccessible positions. I have never found an eyrie which could be reached without ropes and much labour. They breed early in the year. They are commonly to be seen hunting mice and beetles on the grassy downs of the Ghat summits, hovering in the usual kestrel manner.

Falco tinnunculus (tinnunculus ?): The European Kestrel.

A kestrel apparently rather larger and lighter in colour than the last is a widely distributed and fairly numerous winter migrant throughout the more open parts of Coorg.

Hieraëtus fasciatus : Bonelli's Eagle.

I have seen this eagle on several occasions, usually soaring high overhead in the Ghat country. On one occasion I obtained a close view of one feeding on the ground on a crow-pheasant which it had caught on the edge of a hill shola.

Hieraëtus pennatus : Booted Eagle.

Has been recorded from Coorg. Probably a scarce winter visitor.

Lophotriorchis kieneri : The Rufous-bellied Hawk-Eagle.

I have seen this bird on two or three occasions in light woodland country both in the deciduous forest and the Inter-Zone, usually not far from water. Its small size and rich colouration render its identification easier than that of most of the larger birds of prey.

Ictinaëtus malayensis : The Black Eagle.

A wide ranging species which turns up all over the province except in the Dry Zone. They are most often seen in the Ghat forests which I suspect are their breeding grounds. They are wonderful fliers. Their usual method of hunting is to float lightly as a butterfly on motionless wings within a foot or two of the forest canopy, or even lower among the boles and branches of the trees, avoiding obstacles in the most uncanny way, despite the great wing spread of five feet or more. They are silent birds except in the breeding season when courting couples swoop and wheel round each other in play with shrill yelping cries.

Spizaëtus cirrhatu : The Crested Hawk-Eagle.**Spizaëtus nipalensis :** Hodson's Hawk-Eagle.

One or other, or both, of these eagles are regular residents in small numbers throughout the hillier and more well wooded parts of the province, but lacking specimens I have not identified them definitely.

Spilornis cheela : The Crested Serpent Eagle.

The common eagle of the province, found throughout the Ghats, the Inter-Zone, and the moister parts of the deciduous forest in well wooded, well watered country. Though a magnificent flier, and during the breeding season especially given to spending hours together soaring in circles, uttering its wild, whistling scream, it is on the whole

more sluggish than many of the family, and passes most of its day perched on a prominent bough on the edge of some swampy forest clearing or jungle waterhole, ready to pounce on frogs and small snakes which form its usual food. I have never found an eyrie, but suspect it of breeding deep in the interior of thick forest.

Ichthyophaga ichthyaëtus : The Large Grey Fishing-eagle.

Occurs along all the larger rivers of the province. They are not very active birds, and though fine fliers seldom spend long periods soaring high in the air apparently purely for recreation as do so many eagles. They confine themselves strictly to the waterside, and will seldom be seen more than a very short distance from some river or tank. They feed almost exclusively on fish, which they catch by swooping from the wing, or more often from a perch on a bough overhanging the water. Fish up to several pounds in weight are captured.

The eyrie is a huge pile of sticks in a tall tree by the waterside. It is used for years in succession, being gradually added to until it reaches an immense size. Each pair seems to maintain two or three eyries within a mile or two of each other which are used more or less alternately. The breeding season begins in December at which time the birds are very vocal. Their cry is a weird, very loud, clanging succession of screams.

Butastur teesa : The White-eyed Buzzard.

Very rare in Coorg, and confined to the Dry Zone where I have once seen one near Hebbale.

Haliastur indus : The Brahminy Kite.

Found all along the larger rivers, particularly common in the Dry Zone, and somewhat less numerous on their upper courses through the deciduous forest and the Inter-Zone. Odd pairs, however, adopt the habits of *Milvus migrans*, and become parasitic on man, making a living by scavenging round towns and villages far from any large body of water. The jungle-dwelling birds feed largely on fish, frogs and crabs which they catch for themselves. They breed in February, making a substantial stick nest a couple of feet in diameter in some big mango or other evergreen tree at the waterside. Two eggs form the normal clutch.

Milvus migrans : The Pariah Kite.

Common round all the larger villages and towns, though their numbers are small compared with the myriads which haunt the plains villages in Mysore. As everywhere they are cowardly, scavenging birds, though wonderful fliers, and are a great pest to the poultry keeper, levying a heavy toll on young chickens and ducklings. They are very cunning, being well aware of the danger of a gun, and biding their time to make a sudden swoop when no one is looking. They breed in March and April, building a large stick nest usually high up in a tall, isolated tree, but sometimes quite low down. There is usually no lining, but sometimes leafy twigs or scraps of cloth are added.

Elanus caeruleus : The Black-winged Kite.

This graceful little kite is a regular winter migrant in small numbers. They are usually seen in open country such as the cultivated parts of the Dry Zone and the grass downs of the Ghats, but I have also found them in teak clearings and young plantations in the heart of the deciduous forest. They resemble the kestrel in their hunting habits, hovering on the wing, and swooping down on grasshoppers and field mice.

Circus macrourus : The Pale Harrier.

The harriers, except for males in full plumage, are difficult to distinguish in the field and I hesitate to be dogmatic about them. The present species does undoubtedly occur, but I cannot say how commonly as the old males which can be definitely identified are almost certainly greatly in the minority as compared with females and immature birds.

Circus aeruginosus : The Marsh Harrier.

This appears to be the most numerous species and is a common winter visitor all over the province, found everywhere except in forest country. They favour paddy fields especially, and swampy ground, where they feed on frogs. They do attack larger prey, however, and are a nuisance at duck shoots, making off with wounded birds often almost as big as themselves. That they will attack unwounded waterfowl seems unlikely as their presence is usually disregarded and does not cause the consternation evident when a Shahin Falcon or a Goshawk puts in an appearance at a tank.

Astur badius : The Shikra.

A regular and widespread resident, but in surprisingly small numbers compared to those in which it occurs in the Nilgiris in similar biotope. They are found equally in the Dry Zone and the Inter-Zone in fairly open but well wooded cultivated country. They feed largely on lizards, but also on small birds who regard them as deadly foes, and flee with shrieks of fear at their approach, or gather in indignant flocks to mob them. The only nest I have found was thirty feet up in a sapling in the deciduous forest, and was a small platform of sticks. There were three eggs in early April.

Astur trivirgatus : The Crested Goshawk.

Somewhat uncommon, occurring chiefly in forest in the Wet and Inter-Zones. Its method of hunting is to perch unobtrusively in a leafy tree and thence pounce out on some unsuspecting bird in one swift dash, pursuing relentlessly until it captures its prey or the latter escapes by going to ground in a thicket. The only nest I have found was in the Nilgiris in March. It was in a creeper-grown tree in the heart of an evergreen shola, at a height of thirty feet, and was a rough platform of dry sticks a foot wide, lined with green leaves, on which lay a single egg in an early stage of incubation. The sitting bird flew off silently and, though remaining in the neighbourhood, made no sound or demonstration.

Accipiter virgatus : The Besra Sparrowhawk.

Fairly common in the Inter-Zone and the deciduous forest. I have not seen it in Wet Zone evergreen forest, though it may occur there. It is a woodland species and the deadly foe of all small birds who realise this all too well and lose no opportunity of mobbing it if this can be done with safety. I have seen one capture a parakeet as big as itself, and watched another make an unsuccessful attempt on a three-toed Woodpecker. The latter gained a defensive position on a tree limb, and there ensconced and pointing its formidable bill to the enemy, drove off several attacks until the hawk gave up and retired in disgust.

Pernis ptilorhynchus : The Crested Honey-Buzzard.

I believe I have seen this bird in the Wet Zone in a Ghat shola, but it requires confirmation. It certainly should occur as it is fairly numerous on the Nilgiris in this sort of biotope, and Sálím Áli encountered it in Mysore.

Baza jerdoni : Legge's Baza.

An uncommon resident through the Inter-Zone and the eastern slopes of the Ghats where sholas and downland intermingle. Though I have not found a nest, it undoubtedly breeds as I have repeatedly seen pairs accompanied by juveniles which are easily distinguishable by their very pale colouration. The species is chiefly notable for its remarkable courtship flight. The pair soar round each other in circles high in the air. One of them then towers vertically for twenty or thirty feet, and, turning completely over, dives headforemost to its former level. Throughout the performance it utters a series of excited screams—'kip, kip, kip'. The demonstration may be carried out three or four times in a quarter of an hour. I have seen one with a captured lizard, and imagine that these and small mammals are their chief prey as they are slow on the wing and hardly seem sufficiently active to catch birds.

Crocopus phoenicopterus : The Southern Green Pigeon.

Not uncommon in the Dry Zone where it breeds. They wander up occasionally into the deciduous forest, and even the Inter-Zone when some particularly favourite fruit is in season there. They are entirely fruit-eaters living principally on banyan and other wild figs. A nest found in April was twenty feet up in an open thorny tree on the edge of a clearing in deciduous forest. It was an extremely flimsy and fragile platform of thin twigs insecurely balanced on the crossing point of two branches. There were two eggs.

Dendrophasa pompadora : The Grey-fronted Green Pigeon.

A common bird throughout the Inter-Zone and in the evergreen forest of the Ghats up to 4,500 ft. They are much more numerous than is generally realised as they are so wonderfully camouflaged. It is usually their sweet mellow, whistle which gives away their presence. Any large fig tree is certain to be visited when the fruit is ripe especially 'Gonis' and 'Basris'. Such a tree is sure to be alive with barbets, quarrelling and clambering among the outer branches. They are conspicuous enough, but there may be twenty or thirty pigeons in

the tree whose presence will be quite unsuspected as they keep hidden among the leaves on the highest branches. Even if one knows they are there, one is lucky if after a prolonged search with binoculars one can pick out one or two.

I have not found a nest.

***Ducula badia* :** Jerdon's Imperial Pigeon.

Strictly a Wet Zone species confined to the evergreen forests of the Ghats and extending up to the highest sholas. They are hard to shoot or even catch sight of, as they rarely emerge from the tree-tops except when flighting from one feeding ground to another. At these times they fly very high and strongly with slow, purposeful wingbeats. They are undoubtedly more numerous than one realises as one constantly hears their deep, moaning croon in the depths of the sombre forest. I have not found them breeding in Coorg, but on the Kudere Mukh in Mysore they were numerous in the sholas at 7,000 ft. in January, and evidently about to breed as courtship was in full swing. The courtship is of the typical pigeon type, in which the male advances along a bough towards his mate with bowed head and inflated throat cooing vigorously.¹

***Chalcophaps indica* :** The Bronze-winged Dove.

Another Wet Zone species, though found in small numbers throughout the Inter-Zone and occasionally in the deciduous forest. Their real home, however, is the heavy rain forest on the Malabar slope from plains level up to 4,500 ft. Here they are extremely numerous, and may be seen in numbers on roads running through the jungle especially round cart-stands where they pick up the fallen grain. At other times one usually meets them flying low and swiftly beneath the canopy of the forest. They are ground feeders. The call is a low, deep moan of several notes. I have not found the nest, though they undoubtedly breed in Coorg.

***Columba elphinstonii* :** The Nilgiri Woodpigeon.

Has been recorded from the Brahmagiris in the extreme south of Coorg. Although I have never personally seen it in the province it probably occurs sparsely all along the Coorg Ghats as Sálím Ali found it both in the Billigiris to the south and the Bababudans to the north.

***Streptopelia orientalis* :** The Rufous Turtle Dove.

Occurs in varying numbers as a winter migrant only. They are only to be found in the deciduous forest where there is plenty of bamboo, and mainly in the neighbourhood of rivers and the larger streams. In 1933, when large areas of bamboo flowered, they were particularly numerous and were feeding exclusively on the bamboo seed. They are very shy and difficult to shoot, and are generally in pairs, but occasionally in small parties. Their rufous colouration serves to distinguish them in the field from the Spotted Dove.

¹ For an account of the aerial display see Sálím Ali, *J.B.N.H.S.*, 39 : 338.

Streptopelia chinensis : The Spotted Dove.

Extremely common all over the province in all types of country except heavy evergreen forest and the windswept downs of the Ghats. They are entirely ground feeders like the rest of the genus, and live on grain and various wild seeds. One which I shot had its crop stuffed with the seeds of the Sensitive Plant (*Mimosa pudica*). They breed anywhere, often in the most ridiculously conspicuous situations such as a low, open thorn bush, within a yard of the ground and seldom at a height of over twenty feet. Nesting goes on throughout the year.

Streptopelia senegalensis : The Little Brown Dove.

Found only in the driest part of the Dry Zone, where it is common in cultivated country and light scrub jungle. It much resembles the last species in habits. They breed in some low thorn bush or skimpy hedge within a few feet of the ground. The breeding season is quite indefinite though most nests will be found after the first showers in April. Although built in such open situations, the nests are such flimsy little platforms of twigs and the incubating bird sits so closely that they are not conspicuous.

Streptopelia decaocto : The Indian Ring Dove.

Found only in the Dry Zone, but not so numerous as the last species. It is rather more a bird of the jungle, and will be found more commonly in the scrub-grown wastelands than in cultivation. Its call is a very distinctive one. One note at a distance sounds very much like a herd boy calling his cattle. The only nest I have found was in early March, well hidden in the interior of a small, leafy tree in thick scrub at about ten feet from the ground. It was the usual flimsy construction of sticks, and there were two eggs.

Pavo cristatus : The Peafowl.

Rather surprisingly the Peafowl is found throughout the deciduous forest belt often in quite thick woodland, though they prefer the neighbourhood of rivers where there are stretches of open maidan and big clearings. They do not, however, venture beyond the forest belt into the Inter-Zone. They are most at home in the scrub jungle of the Dry Zone where they are definitely common. They are extremely shy however, and though their caterwauling may be heard on any morning at sunrise, it takes very careful stalking to get a view. The way in which such large and highly coloured birds can hide themselves is amazing. They are usually seen in small flocks of six or seven, but one not infrequently comes on cocks by themselves. They emerge into the open to feed in the early mornings and evenings and spend the heat of the day resting in the heart of some impenetrable *Lantana* thicket. Unless flushed with dogs it is very hard to get them to fly, but when they do, even an old cock with his long, heavy train will rocket straight up out of the bushes and rise thirty or forty feet almost vertically to clear the treetops. They apparently breed in the monsoon, probably about June, as though I have not found a nest, I have on a number of occasions seen families of young the size of domestic fowls in August.

Gallus sonnerati : The Grey Junglefowl.

Despite constant persecution by gun and snare, the Grey Junglefowl is found in some numbers all over the province in forest land. They exist even in the heart of the Wet Zone evergreen forest, a habitat shunned by many other almost ubiquitous species. They ascend the Ghats to the highest sholas, and also frequent the thin, scrub jungle of the Dry Zone wastelands. They are commonest of all in the deciduous forest, and in the Reserves, where the Forest Department can exercise some control over shooting and trapping, are really numerous. In the dry weather, from January to April in this region, the crowing of the cocks may be heard on every side. They are to some extent migratory on particular occasions. The flowering of the *Strobilanthes* undergrowth in the Ghat sholas which occurs every seven years or so, attracts very large numbers to the hills, and the same applies when the bamboos flower in the deciduous belt. The breeding season varies somewhat with the locality, from January to March in the Wet Zone, and later, in April and May in the Dry Zone where they wait for the first showers to put an end to the forest fires and start a growth of vegetation. The nest may be anywhere on the ground, usually under a bush. The clutches are small, two or three eggs only. The cocks appear to be polygamous and take no interest in the rearing of the brood.

Galloperdix spadicea : The Red Spurfowl.

While very like the junglefowl in range and habits, this species is even more widely distributed, as it is by no means confined to uninhabited country, but is numerous in coffee plantations, and any patch of *Lantana* or woodland of any size even close to villages. Despite this they are shy birds, scuttling away into the undergrowth if disturbed, and very seldom seen in the open except after the paddy harvest when numbers may be seen of an evening in any field bordering on forest. When flushed by a dog, they fly up into the trees, and, crouching motionless on a lofty bough, are very difficult to pick out. The junglefowl has the same habit. Unlike the junglecock, the male spurfowl leads an exemplary married life. He lives with his single wife throughout the year and is a devoted father, though I do not know whether he shares in incubation. If one disturbs a brood of young chicks, both parents become quite distracted and try to draw off one's attention by floundering about as though *in extremis*, while the young freeze among the dead leaves where their cryptic colouring makes them almost invisible. Breeding takes place early in the year, from late February till April. No nest is made, the eggs being laid in a scrape usually on sloping ground among a drift of dead leaves under a bush. The hen is timid and deserts easily. The normal clutch is two eggs only. The call is a long loud, bubbling rattle.

Excalfactoria chinensis : The Blue-breasted Quail.

I once flushed a very small, very dark quail in long grass on the edge of a paddy field. I failed to shoot it, but it was undoubtedly a new species to me, and would seem likely to have been this bird.

Cryptoplectron erythrorhynchum : The Painted Bush-Quail.

Common throughout the Wet Zone wherever there are considerable stretches of long grass on the borders of paddy fields, especially those abandoned or fallowed. It is also found on the grass downs of the Ghats. It does not occur in the Dry Zone or far into the deciduous forest. The birds live in bevvies of considerable size, a dozen or more individuals. I have never found the nest in Coorg, but in the Nilgiris one that I came on in September was a small pad of grass in a patch of long grass on the edge of a shola. The young had hatched, leaving one addled egg, unmarked and whitish in colour. The normal breeding season is evidently in August and September, after the worst of the rains are over, and the grass has attained a good height. The cock at this time becomes very vocal, constantly reiterating his sweet double call-note. The clutches must be large as one sees up to ten or more young with their parents, who are both most devoted. The chicks can fly at a very early age, even when they are still down-clad mites scarcely bigger than bumble-bees.

Perdica asiatica : The Jungle Bush-Quail.

Replaces the last species in the Dry Zone where it is very common both in the scrub and in cultivation. They are found in considerable bevvies, not quite so large as those of the last species, but from six to ten is a normal number. In the dry season they keep mainly to the scrub, but as soon as the young corn begins to give cover in the 'ragi' fields in June, they flock thither, and though I have not found a nest I suspect that this is where they breed. Eggs must be laid in early July as the young are well grown by the time the 'ragi' is reaped in August.

Francolinus pondicerianus : The Grey Partridge.

Occurs in considerable numbers in the open cultivated area of the Dry Zone, and the patches of wasteland grown with thin scrub which occur therein. Though shy, one comes on them quite close to villages and they are said to be very dirty feeders, though I cannot confirm this. They pair in January and early February at which time the cocks become very vocal and pugnacious. In fact partridge fighting is a favourite pastime of the local inhabitants, and numbers of birds are snared for the purpose. Breeding appears to start with the first rains in May or June, and the five or six young remain in the covey until the following pairing season.

Turnix suscitator : The Common Bustard Quail.

Occurs in the Dry Zone, though by no means common. I have seen one solitary bird shot there.

Rallus eurizonoides : The Spotted Crake.

The only occasion on which I have met this species was on a hill-side in the deciduous forest in thick bamboo jungle, a long way from water. I was in hiding by a game trail when a family party came by, and passed unsuspectingly within a few feet. It was a charming spectacle. One parent led the way, the picture of caution and alertness, peering this way and that as it picked its way along, constantly jerking

its tail to display the bright rufous under-tail coverts. Behind, two little chicks, clad in black down, stumbled through the dead leaves, while their other parent followed behind, shepherding them along if they showed signs of dawdling. This was in September.

Amauornis fuscus : The Ruddy Crake.

A water-loving species which I have never seen except on the borders of flooded paddy fields or round tanks. Common round the big tanks in the Mysore maidan where there are reedy margins. The only record I have for Coorg is one flushed in a bed of bulrushes growing in a small tank in the Dry Zone. They swim freely and even dive when wounded, if chased.

Amauornis phoenicurus : The White-breasted Waterhen.

Common throughout the province in paddy fields and in the neighbourhood of any permanent standing water such as the ponds which are maintained by every coffee estate to supply water for washing and pulping the crop. Though perfectly capable of swimming, they do not do so unless it cannot be avoided, and seek their food on the marshy margins, never very far from some thicket or clump of bushes into which they scuttle for cover on any alarm. They perch freely, clambering up the trees to a considerable height. I have not found a nest, but it would appear that they breed during the monsoon as I have seen a pair in attendance on a couple of downy young in late July. Though normally silent, they give vent at times to the most appalling catcalls of astonishing volume.

Gallinula chloropus : The Indian Moorhen.

The only place in Coorg where I have seen this bird is Halagote Tank, where it is a breeding resident except when, as happened in '38/'39, a succession of short monsoons caused the water almost to dry up and killed the reeds. Two or three pairs ordinarily nest there and remain throughout the year, but their numbers are greatly augmented in the winter by migrants. I have seen as many as fifty or sixty in December. They are indistinguishable in the field from the British bird. Nests which I have found have been substantial floating masses of bulrush leaves anchored to a reedstem, and built up seven or eight inches from the water with a deep, well-formed cup on top. Five or six eggs are laid in July, by which time the tank is or should be full and the reedbeds providing plenty of cover.

Fulica atra : The Coot.

A winter migrant, visiting Halagote Tank in varying numbers.

Porphyrio poliocephalus : The Purple Coot.

A dozen or so of these birds normally inhabit Halagote Tank more or less permanently, though they were absent in the drought years of '38/'39. Their status is somewhat puzzling as though one or two are to be seen even in July which is presumably their breeding season, I never succeeded in finding a nest nor saw young birds. It would appear that they go elsewhere to nest and that those that remain are non-breeding specimens. Though entirely water birds and rarely

seen on land, they avoid open water and do not swim if they can help it. Their whole life is spent clambering about in the reedbeds or wading on the matted beds of floating waterweed. They are noisy, ill-tempered birds with loud, harsh voices, and are continually quarrelling and chasing each other about.

Metopidius indicus : The Bronze-winged Jacana.

In normally wet years this species occurs in numbers on Halagote Tank, but as with the last its status is uncertain, since though I visited the tank in all months of the year and have nearly always found them present, I have never been able to find a sign of eggs or young. They resemble the Purple Coots in habits, but are much more active, running rapidly over the floating weeds and taking wing freely, though in the air they look extremely clumsy with their legs trailing awkwardly behind them. They are extremely noisy birds with a variety of trumpeting and braying calls.

Rostratula benghalensis : The Painted Snipe.

Common in the Mysore 'maidan' round tanks with extensive reedbeds. In Coorg they are scarce though one occasionally comes on an odd bird while out snipe shooting. Their favourite haunts are the thick patches of *Pandanus* which are found at the head of most stretches of paddy land in the Inter-Zone. Where there is one bird, there are likely to be five or six. They sit very closely, and when flushed rise singly and silently and never fly far. They probably breed in the province, though I have not found a nest.

Burhinus oediconemus : The Stone-curlew.

Occurs in the Dry Zone, and is also thinly distributed through the deciduous forest and the Inter-Zone wherever there are patches of downland or jungle clearings, of considerable size, where the grass is kept short by grazing and which include patches of scrub for cover. They are shy birds, largely nocturnal in habit. Throughout the day-time they lurk in the shelter of a bush, but at night are active on the wing, and their wild cries can often be heard as they pass overhead in the darkness from one feeding ground to another. They are on the whole sedentary, each pair living through the greater part of the year in their breeding territory. Eggs are laid in February. The clutch is two and there is no attempt at a nest or even a scrape. They are deposited among dead leaves under some small isolated tree. Although usually laid in the open, there is always some thick cover close at hand into which the bird can slink on the slightest alarm, with the result that it is extremely hard to discover her secret. I have not been able to detect whether the male shares in the incubation, but he is never far away and keeps a constant watch for enemies.

Esacus recurvirostris : The Great Stone Plover.

A bird of the lower reaches of the larger Indian rivers. In Coorg two or three pairs only may be found within the provincial boundary, on the Cauvery where it flows through the open cultivation of the Dry Zone. They are to be found in stretches where the river widens and runs among boulders and bare, rocky islets. Although like other

Stone Plovers they are really nocturnal birds, feeding and becoming active at night, they are by no means shade lovers and spend the day drowsing in the full glare of the sun on some baking rock. They breed in February, and the two eggs are usually laid on a patch of sand or gravel within a foot or two of the water on a ledge of a slab or rock in mid-stream. The same site is used year after year. The birds are not shy, brooding unconcernedly while bathing, watering of cattle, and all the activities of Indian village life go on along the shore a few yards away. Incubation throughout the day at any rate is of necessity very close as the nesting site becomes so hot that were the eggs left uncovered for more than a few minutes at a time, they would certainly be cooked. I cannot say whether both birds share in brooding, but it seems likely as the strain in such heat must be severe. They feed chiefly on crabs, and possibly frogs and tadpoles, their strong recurved bills being admirably adapted for prying under stones of some size. The cry is a loud creaking note, not at all like the 'curlew' call of the common Stone Curlew.

***Sterna aurantia* :** The Indian River Tern.

A few pairs are to be found in the same locality as the last species, that is along the Cauvery in its lower and more open reaches where it runs through the Dry Zone on the Mysore border. Each pair occupies a long stretch of water, and they strongly resent trespassing on the part of others of their own species, birds of prey, and any unusual humans or animals, especially in the breeding season. They swoop round the intruders, screaming angrily. They are exclusively fish-eaters, catching their prey in the normal tern manner by plunging from the wing, very rarely settling on the water or swimming. Breeding goes on from March to May. The eggs are laid without any sort of nest in a hollow of a rock in mid-stream and number two or three. The young when hatched are clad in grey down and can hide themselves in an amazing manner simply by squatting motionless fully in the open on their home rock. They are fed by both parents till they are well on the wing.

***Sterna melanogaster* :** The Black-bellied Tern.

I have seen birds of this species occasionally along the Cauvery in the same area as the last, but they are by no means so common and I have not found them breeding.

***Charadrius dubius* :** The Little Ringed Plover.

A few of these little plovers may occasionally be seen along the lower reaches of the Cauvery in the Dry Zone and I have seen one or two on the shores of Halagote Tank. All my records have been in March, and I am uncertain whether they are likely to be the resident or the migratory race. I have not found signs of breeding. They haunt sandbanks and sandy stretches along the shore, but occasionally may be found on bare fallows or 'maidans' some way inland.

***Lobivanellus indicus* :** The Red-wattled Lapwing.

Extremely common all along the larger rivers both in their forest reaches and the open country lower down, but especially in the latter.

They are essentially waterside birds, and though one occasionally sees them on 'maidans' and forest clearings in the deciduous forest and the Inter-Zone some way from the river, they are only temporary visitors in these places. They spend the day standing about, drowsing on rocks in the stream, and only become active in the evening and during the night, especially when there is a moon, at which times their calls may be heard overhead in places where they are never seen normally. The breeding season is in February and March. Oddly enough in my experience though an occasional nest may be found on an islet in the river, the great majority leave the waterside at this time and go inland for up to a mile to some secluded clearing in the jungle or a ploughed field, if in cultivated country. The four eggs are laid in a scrape in the ground, sometimes with a slight lining of small pebbles or bits of dried cowdung. Until the eggs hatch, the birds are very secretive. On an alarm, the sitting bird slips off the nest and runs to a safe distance and then both she and the male fly right away in silence. After hatching however their tactics change completely. Any intruder is greeted with shrieks of abuse, the old birds flapping and swooping round his head, or flopping frenziedly along the ground as though seriously wounded.

Lobipluvia malabarica : The Yellow-wattled Lapwing.

I have only come on this bird at one spot in Coorg, the Belur Golf-course near Somwarpet, some 200 acres of downland lying on the borders of the deciduous forest. Here two pairs lived for five years between '35 and '40 when I left the district. They appeared annually about Christmas and stayed until the break of the monsoon. They attempted to breed the first two years, but only managed to raise one brood out of four and in subsequent years do not appear to have nested though I kept a constant watch on them. The clutch was four. All four nests were within a few yards of the same spot, fully exposed on short grass in the middle of the fairway, and they were not inconspicuous, being quite substantially lined with bits of grass and dried cowdung. The first year, however, when they raised a brood, the eggs were of the normal colour and blended well with the surroundings. In subsequent years the male must have got a new mate, as the eggs were of a bright erythristic type, contrasting vividly with the olive green turf, and they were taken almost as soon as laid. It is of interest to note that Belur is only some sixty miles from the red laterite plains of the Malabar coastal belt where apparently this species regularly lays erythristic eggs which match well with the surrounding soil. All nests I have seen were in March. These lapwings are quiet birds compared with the last species and do not require the close proximity of water.

Himantopus himantopus : The Black-winged Stilt.

I saw three birds, my only record, at Halagote Tank on 9-1-39, a dry year when the tank was reduced to a mere puddle of muddy water in which the birds were wading thigh deep. One comes on them quite frequently on the big tanks in Mysore.

Tringa ochropus : The Green Sandpiper.

A common winter visitor both in the Dry and Inter-Zones. They are to be found wherever there is water and open country on the shores of tanks, paddy fields, and along streams, usually singly. They arrive in September and leave late, some lingering till May.

Actitis hypoleucos : The Common Sandpiper.

The earliest winter migrant to Coorg, arriving before the end of August. It is entirely a waterside species, found on all the larger rivers both in their forest reaches and lower down in open country, but nowhere in large numbers. Usually a pair is the most that will be seen together. They also appear on the shores of Halagote Tank and the big Mysore tanks.

Tringa glareola : The Wood Sandpiper.

A waterside species found in large numbers in winter on the shores of all the big Mysore tanks. In Coorg, Halagote Tank is the only place where I have seen them, especially in dry years when large stretches of open mud are exposed. Unlike the Green Sandpiper, they do not like reeds or swamps grown with long grass, and they are much more sociable than that species.

Scolopax rusticola : The Woodcock.

Probably occurs regularly in small numbers as a winter migrant, haunting the cardamom plantations and evergreen sholas on the eastern slopes of the Ghats above 4,000 ft., as it is well known in Mysore in such country. The only one, however, that I have actually seen in Coorg was a stray on the banks of a stream running through coffee near Somwarpet at 3,500 ft. In Mysore they are very conservative in their habits. On an estate near Chikmagalur with which I am acquainted, half a dozen or so are to be found every year in one particular small ravine and nowhere else.

Capella gallinago : The Fantail Snipe.

Recorded from Coorg, but nowhere numerous. It is much commoner in Mysore round reed-grown tanks in the 'maidan'.

Capella stenura : The Pintail Snipe.

The common snipe of the province found in considerable numbers in winter, varying according to the water available. They occur wherever there is suitable feeding ground, in the shape of swampy, fallow paddy fields. They like the soil to be soggy but without actual standing water, and the grass must not be more than three inches long. Strangely enough they will rarely be found in flooded standing paddy, a favourite haunt on the Malabar Coast. They feed mostly in the morning and evening, and very often spend the day in any jungle, especially screwpine or lantana, adjoining their feeding grounds. They arrive early in September and leave in April.

Capella nemoricola : The Wood Snipe.

I was shown a specimen shot near Mercara on 28-1-38 and another obtained just over the Mysore border, near Somwarpet. These are the only two records for the district.

Phalacrocorax niger : The Little Cormorant.

Occurs on the larger rivers. It is common on the Cauvery in its lower reaches on the Mysore border, and occasionally wanders some way up into the forest stretches. It does not breed in the province. All those found there probably drop downstream to nest at the big heronry at Palhalli near Seringapatam.

Anhinga melanogaster : The Darter.

Found singly and in small numbers all up and down the bigger rivers well up into the forest reaches. Unlike the cormorant which usually chooses a rock, the darters frequently perch in trees, choosing a thick one overhanging the water from which they can watch for their prey. Like the last species they breed at Palhalli during July and August.

Anastomus oscitans : The Open-billed Stork.

Occurs occasionally on the wide, open reaches of the Cauvery in the Dry Zone below Fraserpet, usually singly but sometimes two or three together. These also breed at Palhalli.

Dissoura episcopa : The White-necked Stork.

I have once seen a pair in Coorg, and one or two others just over the Mysore boundary, in all cases in wild, uninhabited, open scrub country.

Ardea purpurea : The Purple Heron.

This bird is only to be found in the neighbourhood of tanks in which large, dense reedbeds grow. One may often see a solitary bird at Halagote in wet years when the reeds are tall, and also at another small and very reedy tank nearby. They are shy birds. Their great height enables them to see over the reed tops, and pick out any approaching danger, when they do not freeze like the Bittern, but take wing with a great fluster, and fly off croaking harshly. A small colony nests at Palhalli, not on the main island among the other birds, but on a separate islet covered with *Pandanus*. The nests are in the heart of the *Pandanus* tops and quite invisible from outside. The breeding season is from July to September.

Egretta alba : The Large Egret.**Egretta intermedia** : The Smaller Egret.**Egretta garzetta** : The Little Egret.

All three egrets occur sporadically round Halagote and the other small Dry Zone tanks, also on the lower reaches of the Cauvery. *E. alba* and *E. intermedia* are much less common than *E. garzetta*. The Large Egret is generally solitary, the other two are occasionally found in small flocks. Though common in flooded paddy fields in Mysore, in Coorg they are confined to the Dry Zone and are not found in the paddy cultivation of the Wet Zone or the deciduous forest belt. All three breed during the rains at Palhalli.